

Amendment and Response

Applicant: Curtis Reese et al.

Serial No.: 10/725,169

Filed: December 1, 2003

Docket No.: 100110834-1

Title: SYSTEMS AND METHODS FOR REMOTE MANAGEMENT OF PRINTING DEVICES

IN THE CLAIMS

Please amend claims 1-3 and 7-18 as follows:

1. (Currently Amended) A method, comprising:
 - ~~identifying a model of a printing device connected to a network;~~
 - ~~providing access to printing device management content related to the printing device;~~
 - ~~the printing device management content including native interfaces for accessing printing device firmware in the printing device;~~
 - determining if a printing device connected to a network has a browsing capability;
 - determining that the printing device is a non-management-enabled printing device if the printing device does not have the browsing capability;
 - accessing printing device management content related to the non-management-enabled printing device via a client device connected to the non-management-enabled printing device, the printing device management content located on a network site and including native interfaces for accessing printing device firmware of the non-management-enabled printing device in a native language of the non-management-enabled printing device;
 - providing a user interface related to the printing device management content of the non-management-enabled printing device on the client device, the user interface including one or more user-selectable items, each user-selectable item being associated with a printing device management function available in the printing device management content of the non-management-enabled printing device;
 - receiving a user selection of at least one user-selectable item; and
 - executing the printing device management function associated with the user selection;
- and
 - wherein the printing device management content is located on or accessed by the printing device if the printing device has a browsing capability, and the printing device management content is located on a network site if the printing device does not have a browsing capability.

2. (Currently Amended) The method as recited in claim 1, wherein if the printing device does not have ~~[[a]]~~ the browsing capability, the executing further comprises communicating with the printing device firmware at a low level between the native interfaces and a stub located on the non-management-enabled printing device, the stub exposing multiple firmware interfaces.
3. (Currently Amended) The method as recited in claim 1, ~~further comprising determining if the printing device has [[a]] browsing capability wherein determining if the printing device has the browsing capability includes determining whether the printing device includes an embedded web server.~~
4. (Original) The method as recited in claim 1, wherein the printing device is directly connected to the network.
5. (Original) The method as recited in claim 1, wherein the printing device is indirectly connected to the network.
6. (Original) The method as recited in claim 1, wherein the network site is an Internet site.
7. (Currently Amended) The method as recited in claim 1, wherein the printing device management function further comprises a function that harvests data from the non-management-enabled printing device.
8. (Currently Amended) The method as recited in claim 1, wherein the printing device management function further comprises a function that modifies printing device settings of the non-management-enabled printing device.
9. (Currently Amended) The method as recited in claim 1, wherein the printing device management function further comprises a function that transfers printing device software to the non-management-enabled printing device.

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10. (Currently Amended) The method as recited in claim 1, wherein the network site further comprises a network site maintained by a manufacturer of the non-management-enabled printing device.

11. (Currently Amended) The method as recited in claim 1, wherein:
the printing device is a first printing device; and
the method ~~steps are~~ repeated for a second printing device connected to the network.

12. (Original) A ~~client device system~~, comprising:
memory;
a processor;
a browser;
a client device;
a printing device group; and
a printing device management component configured to:
access one of multiple printing devices in [[a]] the printing device group;
identify a model of the printing device;
locate a set of printing device native interfaces for accessing firmware of the printing device in a native language of the printing device; and
communicate with the printing device to execute a printing device management application with the printing device,
wherein, if the printing device does not have a browsing capability, the printing device is determined a non-management-enabled printing device, the printing device management component is provided on the client device, the client device is configured to obtain printing device management content including the printing device native interfaces from a network site, and the client device is configured to display a user interface for management of the non-management-enabled printing device.

13. (Currently Amended) The client device system as recited in claim 12, wherein the printing device management component is further configured to locate the set of printing device native interfaces by retrieving the interfaces from the printing device wherein the network site is a network site maintained by a manufacturer of the printing device.

14. (Currently Amended) The client device system as recited in claim 12, wherein the printing device management component is further configured to locate the set of printing device native interfaces by accessing a network site further comprising:

wherein, if the printing device has a browsing capability, the printing device is determined a management-enabled printing device, the printing device management component is provided on the management-enabled printing device, the management-enabled printing device is configured to obtain the printing device management content including the printing device native interfaces from the network site, the management-enabled printing device is configured to provide the user interface for management of the management-enabled printing device to the client device, and the client device is configured to display the user interface for management of the management-enabled printing device.

15. (Currently Amended) The client device system as recited in claim 14, wherein the network site is a network site maintained by a manufacturer of the printing device.

16. (Currently Amended) The client device system as recited in claim 12, wherein the printing device management component is further configured to communicate with the printing device via a stub located on the printing device, the stub exposes low level firmware interfaces for the printing device.

17. (Currently Amended) The client device system as recited in claim 12, wherein the printing device management component is further configured to access at least one other printing device of the printing device group to execute the printing device management application with the other printing device.

18. (Currently Amended) One or more computer-readable media containing computer-executable instructions that, when executed on a computer, perform the following steps:
- determining if a printing device is management-enabled;
 - ~~if the printing device is management-enabled, facilitating one or more printer management functions controlled by the printing device;~~
 - ~~if the printing device is not management-enabled:~~
 - ~~accessing printer management content~~
 - ~~if the printing device is management-enabled:~~
 - ~~facilitating one or more printing device management functions of the printing device, including providing a user interface for the one or more printing device management functions to a client device from the printing device; and~~
 - ~~if the printing device is not management-enabled:~~
 - ~~accessing printing device management content for the one or more printing device management functions of the printing device on a network site via the client device; and~~
 - ~~communicating with the printing device via low-level printing device native interfaces to carry out the one or more printing device management functions, the low-level printing device native interfaces being included in the printing device management content accessed on the network site via the client device and providing access to printing device firmware of the printing device in a native language of the printing device.~~
19. (Original) The one or more computer-readable media as recited in claim 18, wherein the determining step further comprises referencing a list that includes printing device model numbers and, if the list contains a model number of the printing device, determining that the printing device is management-enabled.
20. (Original) The one or more computer-readable media as recited in claim 18, wherein the determining step further comprises attempting to locate a browser in the printing device and, if a browser is found, determining that the printing device is management-enabled.

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21. (Original) The one or more computer-readable media as recited in claim 18, wherein the determining step further comprises attempting to locate one or more software files exclusively related to a browser and, if found, determining that the printing device is management-enabled.
22. (Original) The one or more computer-readable media as recited in claim 18, wherein the facilitating step further comprises receiving user input for the printing device and displaying user output generated by the printing device.
23. (Original) The one or more computer-readable media as recited in claim 18, wherein the accessing printing device management content step further comprises accessing printing device management content on a web site.
24. (Original) The one or more computer-readable media as recited in claim 23, wherein the web site is a web site maintained by a manufacturer of the printing device.
25. (Original) The one or more computer-readable media as recited in claim 18, wherein the communicating step further comprises communicating with a stub located on the printing device, the stub exposing the printing device native interfaces.
26. (Original) The one or more computer-readable media as recited in claim 18, wherein the communicating step further comprises utilizing one or more native interfaces that are proprietary to a manufacturer of the printing device.